

CLAIMS

What is claimed is:

1. In combination:

a bow which comprises a riser and limbs extending in opposite directions  
from opposite ends of said riser; and

a component operatively associated with each of said limbs for modifying  
the decay pattern of the vibrations set up in the limbs of said bow when an arrow is  
released.

2. A combination as defined in claim 1 in which the bow has solid  
limbs.

3. A combination as defined in claim 1 in which the bow has split  
limbs.

4. A combination as defined in claim 1 wherein the components  
associated with the limbs of the bow are alike.

5. A combination as defined in claim 1 wherein each decay pattern modifying component:

has a head and a stem integrated with said head; and

is fabricated from an elastomeric material.

a ~~6~~<sup>20</sup> A combination as defined in claim ~~5~~<sup>14</sup> wherein:

the stem of each decay pattern modifying component is fixed at an exposed end to that limb of the bow with which it is associated; and

the decay pattern modifying component is so capable of wiggling and jiggling as to effect said modification of vibration—decay pattern.

a ~~7~~<sup>21</sup> A combination as defined in claim ~~5~~<sup>19</sup> wherein each of the decay

pattern modifying components comprises an adhesive on an exposed end of the component's stem for attaching the component to the associated bow limb.

a ~~8~~<sup>22</sup> A combination as defined in claim ~~5~~<sup>19</sup> wherein:

a rigid element is so fixed to an exposed end of the stem of each decay

pattern modifying component to strengthen the union of said component to the associated

bow limb.

~~9.~~ <sup>23</sup>

A combination as defined in claim ~~8~~ <sup>22</sup> in which each of the decay

pattern modifying components has an adhesive on an exposed face of the rigid element.

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~~10.~~ <sup>24</sup>

A combination as defined in claim ~~8~~ <sup>19</sup> wherein:

each decay pattern modifying component comprises an integral, threaded

fastener; and

there is a complementary threaded insert in the associated bow limb and

extending through a gap between branches of said limb into which the fastener is

threaded.

~~11.~~ <sup>25</sup>

A combination as defined in claim ~~10~~ <sup>24</sup> which comprises:

a first element fixing said one component to said bow limb segment; and

a second element for fixing the decay pattern modifier to said second

component.

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<sup>26</sup>  
~~12~~ A combination as defined in claim <sup>38 17</sup>~~12~~ in which:

each limb of the bow has a split limb segment comprising two parallel branches with a gap therebetween; and

each decay pattern modifier comprises components for clamping the modifier to the split segment of the associated limb.

<sup>27</sup>  
~~13~~ A combination as defined in claim <sup>26</sup>~~12~~ wherein the components for

securing the modifier to the split limb segment of the associated bow limb comprise:

a first component which is fixed to an exposed end of the vibration decay pattern modifier stem and is seated on one side of the split limb segment;

a second, complementary component seated on the opposite side of the split limb segment; and

a fastener arrangement for clamping the first and second branches of the split limb segment between said first and second components.

<sup>28</sup>  
~~14~~ A combination as defined in claim <sup>27</sup>~~13~~ wherein said fastener

arrangement comprises:

an internally threaded component integrated with said first component; and

a complementary, externally threaded element integrated with said second

component and threadingly engageable with the first internally threaded component.

a <sup>29</sup> 15. A combination as defined in claim <sup>19</sup> 2 in which the elastomeric <sup>38</sup>

material from which the decay pattern modifying components are fabricated comprises a

visco-elastic mixture of chloroprene and butyl polymers.

a <sup>30</sup> 16. A combination as defined in claim <sup>19</sup> 2: <sup>38</sup>

which includes a bow string; and

wherein each of the bow limbs has an inner side facing the bow string and

an outer side.

<sup>31</sup> 17. A combination as defined in claim <sup>30</sup> 16 wherein each decay pattern

modifying component is mounted to the outer side of the associated bow limb.

<sup>32</sup> 18. A combination as defined in claim <sup>30</sup> 16 wherein;

each decay pattern modifying component is mounted to the inner side of the

bow limb with which it is associated; and

the component is so located along the associated bow limb as to space the head of the component sufficiently far from the bow string that said bow string does not interfere with the decay pattern modifying wiggling and jiggling of the component or knock the component off the bow limb when an arrow is released.

a <sup>33</sup><sub>19</sub> A combination as defined in claim <sup>19</sup><sub>38</sub>:

which comprises a fastener for mounting each of the decay pattern modifying components to its associated bow limb, each said fastener having:

a head embedded in the stem of the associated decay pattern modifying component; and

a shaft having an externally threaded segment protruding from said stem.

20. In combination:

an archery bow;

a bow stabilizer; and

a device for modifying the decay pattern of vibrations set up in said bow

and said stabilizer when an arrow is released;

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said bow comprising a riser and limbs at opposite ends of said riser;  
said stabilizer comprising an elongated member having first and second  
ends, the first end of the elongated member being fixed to the riser of the bow; and  
the decay pattern modifying member being fixed to the second end of said  
member.

21. A combination as defined in claim 20 wherein:

the decay pattern modifying device has a stem and a head integral with  
said stem and is fabricated from an elastomeric material;

it is an end of said stem that is fixed to the stabilizer; and

the device is free to wiggle and jiggle when an arrow is released and  
vibrations are consequentially set up in the stabilizer away from the longitudinal axis of  
the component.

a <sup>35</sup>  
~~22.~~ A combination as defined in claim <sup>34</sup>~~21~~ wherein:

the stem of the decay pattern modifying device has a first segment which is fabricated from said elastomeric material and is juxtaposed to the head of the component; and

said device has a second segment which is fabricated from a more rigid material and is fixed to the first segment of the stem.

<sup>36</sup>  
~~23~~ A combination as defined in claim <sup>35</sup>~~22~~ which compromises a fastener for attaching the decay pattern modifying device to the stabilizer member.

<sup>37</sup>  
~~24~~ A combination as defined in claim <sup>36</sup>~~23~~ in which the fastener is threaded into the second segment of the decay pattern modifying device and has an exposed, externally threaded portion which can be threaded into a complementary, internally threaded recess in the second end of the bow stabilizer.

a <sup>38</sup>  
~~25~~ A combination as defined in claim <sup>34</sup>~~21~~ wherein there is an adhesive bond between the stem of the decay pattern modifying device and the second end of the stabilizer member.



26.

A device for modifying the decay pattern of the vibrations set up in an

archery bow when an arrow is released, said device comprising:

a vibration pattern modifying component which has an integral head and

stem and is fabricated from an elastomeric material; and

a mechanism for attaching said component to a bow limb.

27.

A device as defined in claim 26 in which the head and stem of the

device are so configured and related that:

the head and stem of the device are free to wiggle and jiggle when an arrow

is released and vibrations are consequently set up in the bow.

28.

A device as defined in claim 26 in which the elastomeric material

from which the decay pattern modifying components are fabricated comprises a mixture

of chloroprene and butyl polymers.

29.

A device as defined in claim 26 in which the component attachment

mechanism comprises a layer of adhesive.

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30. A device as defined in claim 26 in which the component attaching  
mechanism comprises:

a threaded fastener integrated with said component; and

a complementary, internally threaded insert which is of sufficient rigidity to  
hold said fastener and is adapted to be installed in the limb of a bow with which the decay  
pattern modifying device is to be associated.

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31. A device as defined in claim 26:

which is designed for a split limb bow; and

has an attachment mechanism comprising a rigid mount which: (a) is fixed  
to an end of said stem, and (b) is dimensioned and configured to span a gap between  
branches of a split bow and to be fixed to said branches.

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32. A device as defined in claim 31 in which the attachment mechanism  
comprises an adhesive for securing the mount to the branches of the split bow limb.

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~~33~~

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~~26~~

A device as defined in claim 26 in which the attachment mechanism

comprises first and second clamp elements adapted to be seated on opposite sides of a split bow limb having two branches with a gap therebetween;

a threaded fastener so integrated with the first clamp element as to be extendible through a gap between two branches of a split bow limb; and

a fitting integrated with the second clamp element into which the fastener can be threaded;

said vibration pattern modifying component being fixed to the second clamp component.

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~~34~~

A decay pattern modifier for an archery bow stabilizer, said modifier

comprising:

a first component which has an integral head and stem and is fabricated from an elastomeric material;

a second, internally threaded component which is affixed to the first component; and

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a fastener which is threadable into the second modifier component;

the second component of the decay pattern modifier being sufficiently rigid

to retain the fastener in said second component of the decay pattern modifier.

35. A decay pattern modifier as defined in claim 34 in which the head

and stem of the first modifier component are so related that the component can wiggle

and jiggle when an arrow is released and thereby modify the decay pattern of vibrations

setup in the component of the bow to which the decay pattern modifier is attached.

move in any and all directions in a 360° arc relative to a longitudinal axis of

the modifier; and

any and all peripheral portions of the head of the first decay pattern

modifier component can oscillate toward and away from the stem of said first component.

17 14  
~~36.~~ A decay pattern modifier as defined in claim ~~34~~ in which the

material from which said first component is fabricated comprises a mixture of

chloroprene and butyl polymers.

~~37~~<sup>18</sup> A decay pattern modifier as defined in claim ~~34~~<sup>11</sup> which has an

integral, annular element spaced along said stem from said head;

said annular element being free to wiggle and jiggle with said stem and said

head.

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